PAH-102

IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Anders Jonsson	:	Examiner: Glenn F. Myers
Title: Rotator	:	Group Art Unit: 3652
Serial No.: 10/502,017	:	
Filed: December 17, 2004	:	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Mail Stop: Appeal Briefs, Patents

APPEAL BRIEF

I. INTRODUCTION

This is an appeal from the rejection of claims 1 – 20 made in the Official Action dated March 2, 2010, placing this patent application under Final Rejection.

An Appendix Of Appealed Claims is attached hereto.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

10/12/10
MARK P. STONE **(Date of Deposit)**
Reg. No. 27,954

II. REAL PARTY IN INTEREST

Indexator AB, a Swedish corporation currently maintaining its principal place of business at S-922 31 Vindeln, Sweden, the Assignee of all exclusive right, title and interest in and to the present patent application, is the real party in interest.

III. RELATED APPEALS AND INTERFERENCES

Applicant, Applicant's Assignee, and the legal representative of Applicant and Applicant's Assignee, are unaware of any pending appeals, interferences, or judicial proceedings which may be related to, directly affect, or be directly affected by, or have a bearing on the Board's decision in the present appeal.

IV. STATUS OF CLAIMS

Claims 1 – 20 are presented for review on appeal. Each of these claims has been rejected over the prior art.

No claim has been objected to, cancelled, allowed, or indicated to contain allowable subject matter.

V. STATUS OF AMENDMENTS

No amendment seeking to amend the claims has been filed subsequent to the Final Action dated March 2, 2010.

A Request For Reconsideration After Final Rejection, which did not seek to amend any claims, was filed on July 12, 2010. By Advisory Action dated August 13, 2010, the Examiner maintained the prior art rejection of all claims.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

Claims 1 and 9 are the only independent appealed claims.

Appealed independent claim 1 is directed to rotator, designated by reference numeral 10, for jib-carried tools (Applicant's Specification, page 2, lines 5 – 11; Figure 1 of the drawing). Rotator 10 is hydraulically driven (Applicant's Specification, page 2, lines 11 – 14) and includes a stator designated by reference numeral 20 and a rotor designated by reference numeral 30 (Applicant's Specification, page 2, lines 16 - 18; Figures 2 – 4 of the drawing). The rotator 10 is connected to a tip designated by reference numeral 2 of the jib or arm designated by reference numeral 3 via a link arrangement and to a tool designated numeral 1 (Applicant's Specification, page 2, lines 5 – 14; Figure 1 of the drawing). Rotator 10 includes means for determining the

relative position of rotation between the rotor 30 and the stator 20 (Applicant's Specification, page 4, lines 8 – 10; Figures 2 and 4 of the drawing) and limiting the extent of rotation of the rotor relative to the stator based upon the determined relative position (Applicant's Specification, page 4, lines 11 – 13 and 15 – 18) for limiting twisting of attached hoses and/or cables (Applicant's Specification, page 4, lines 13 – 15) and to enhance automatisation (Applicant's Specification, page 5, lines 23 – 25).

Independent claim 9 is directed to a method pertaining to a rotator designated by reference numeral 10 for a jib-carried tool (Applicant's Specification, page 2, lines 5 – 10; Figure 1 of the drawing). The rotator 10 is hydraulically driven and includes a stator designated by reference numeral 20 and a rotor designated by reference numeral 30 (Applicant's Specification, page 2, lines 16 – 18; Figures 2 – 4 of the drawing), in which the rotator 10 is connected to a tip designated by reference numeral 2 of a jib or arm designated by reference numeral 3 via a link arrangement and to a tool designated by reference numeral 1 (Applicant's Specification, page 2, lines 5 – 14; Figure 1 of the drawing). The method includes the step of determining the relative position of rotation between the rotor 30 and the stator 20 with the aid of rotational position indicating means designated by reference numerals 70, 71 (Applicant's Specification, page 4, lines 8 – 10; Figures 1 and 4 of the drawing) and limiting the angle through with the rotator 10 rotates in either direction from a starting position based upon the determined relative position of the rotor and the stator (Applicant's Specification, page 4, lines 8 – 12) for limiting the extent to which hoses and cables are able to twist (Applicant's Specification, page 4,

lines 12 – 18 and page 5, lines 18 – 23) and to enhance automatisation (Applicant's Specification, page 5, lines 23 – 25).

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are:

1. Whether claims 1 and 9 are unpatentable under 35 U.S.C. Section 103(a) over the Dessaux patent (U.S. Patent No. 5, 071, 184) in view of the Hansson patent (U.S. Patent No. 4, 989, 652); and
2. Whether claims 2 – 8 and 10 – 20 are unpatentable under 35 U.S.C. Section 103(a) over the Dessaux patent, and the Hansson patent, in further view of the Strauss et al patent (U.S. Patent No. 5, 988, 126).

VIII. ARGUMENT

Claims 1 and 9 are the only independent claims presented for review on appeal. For the purpose of simplifying the issues, the prior art rejection of appealed claims 1 – 20 will be argued only with respect to the two independent claims. If these claims are deemed to be allowable, the remaining appealed dependent claims 2 – 8 and 10 – 20 will also be allowable, at least for the same reasons as their respective parent independent claim 1.

As discussed above, independent apparatus claim 1 is directed to a rotator for a jib-carried tool, while independent claim 9 is directed to a method pertaining to a rotator for a jib-carried tool. Independent claim 1 expressly recites means for determining the relative position of rotation of the rotor and the stator and limiting the extent of rotation of the rotor relative to the stator based upon said determined relative position for limiting twisting of attached hoses and/or cables. The method defined by independent claim 9 expressly recites the step of determining the relative position of rotation between the rotor and the stator with the aid of rotational position indicating means, and limiting the angle through which the rotator rotates in either direction from a starting position based upon the determined relative position of the rotor and the stator for limiting the extent to which hoses and cables are able to twist.

In the final rejection of independent claims 1 and 9 in the Official Action dated March 2, 2010, the Dessaux patent was applied as disclosing a rotator including means for determining the relative position of rotation between the rotor and the stator and limiting the extent of rotation of the rotor relative to the stator upon said determined relative position for limiting twisting of attached hoses and/or cables and to enhance automatisation. The rejection of the independent claims relied upon column 3, lines 25 – 31 of the Dessaux Specification (page 2, paragraph 5 of the Official Action dated March 2, 2010). The Hansson patent was applied only for the purpose of disclosing a hydraulically driven rotator (page 3, paragraphs 8 – 9 of the Official Action dated March 2, 2010).

The portion of the Dessaux patent relied upon in support of the rejection of independent claims 1 and 9, states the following:

"According to an additional characteristic, the device according to the invention is equipped with a relative position sensor such as an absolute or incremental coder, which controls the angular position of the grappling element turning with respect to the pulley block body, and a gyrometer that controls the absolute position of the turning grappling element ..." (column 3, lines 25 – 31 of the Dessaux Specification).

Although the above-quoted portion of the Dessaux patent discloses different sensors, it fails to teach or suggest " ... means for determining and limiting the extent of rotation of the rotor relative to the stator based upon said determined relative position for limiting twisting of attached hoses and/or cables ..." (independent claim 1) or " ...determining...and limiting the angle through which the rotator (10) rotates in either direction from a starting position based upon the determined relative position of the rotor and stator for limiting the extent to which pressure medium connection hoses present are able to twist and/or to limit the extent to which connection cables (7) including ... are able to twist ..." (independent claim 9).

Thus, although the Dessaux patent discloses position sensors, it fails to teach or suggest means for limiting the extent of rotation of a rotor relative to a stator based upon the determined relative position for limiting twisting of hoses and/or cables, as expressly recited in both independent claims 1 and 9. The Dessaux patent refers to twisting of cables only with

respect to the discussion of a prior art reference. More specifically, column 1, lines 41 – 47 of the Dessaux Specification states:

"... In these embodiments, two problems must be overcome, i.e., on the one hand, first maintaining sufficient mechanical tension on the feed and remote control cable and, second, protection against the risk of shearing and deterioration of the feed and remote control cable in event the lifting cables become twisted."

However, the prior art reference discussed by Dessaux only provides protection against shearing and deterioration of the feed and remote control cables in the event that the lifting cables become twisted (column 1, lines 46 – 47 of the Dessaux Specification). Thus, even the prior art reference discussed by Dessaux provides no positive means for preventing twisting of cables, and protection against shearing and deterioration of the feed and remote cables is provided only after the cables have already become twisted. (column 1, lines 41 – 47 of the Dessaux Specification).

Applicant respectfully submits that the Dessaux patent does not teach or suggest determining the relative position of rotation between a rotor and stator, and limiting the extent of rotation of the rotor relative to the stator based upon the determined relative position for limiting twisting of attached hoses and/or cables (independent claim 1), or limiting the angle to which the rotator rotates in either direction from a starting position based upon the determined relative position of the rotor and the stator for limiting the extent to which hoses and/or cables able to twist (independent claim 9).

Applicant respectfully submits that the Dessaux patent fails to teach or suggest significant features of Applicant's claimed rotator which are positively recited in independent claim 1, or significant steps of Applicant's claimed method which are positively recited in independent claim 9. The secondary Hansson patent has not been applied as disclosing means for limiting the extent of rotation of the rotor relative to the stator based upon the determined relative position for limiting twisting of hoses and/or cables. Thus, since neither of the two combined references teaches these features of the claimed invention, a combination of the two applied references likewise will not teach or suggest the rotator defined by independent claim 1 when all positively recited features of that claim are considered, or the method defined by independent claim 9 when all positively recited steps of that claim are considered.

Applicant respectfully submits that both independent claims 1 and 9 are allowable over the two combined prior art references applied to reject these claims in the Final Action.

IX. CONCLUSION

For the reasons discussed herein, and throughout the prosecution of this patent application, Applicant respectfully submits that independent claims 1 and 9 are allowable, and that dependent claims 2 – 8 and 10 – 20 are allowable at least for the same reasons as their respective parent independent claim 1.

Applicant respectfully requests that the rejection of claims 1 – 20 made in the Final Action dated March 2, 2010 be reversed.

Respectfully submitted,

Mark P. Stone
Registration No. 27, 954
Attorney for Applicant
50 Broadway
Hawthorne, NY 10532
914-769-1106

APPENDIX OF APPEALED CLAIMS

Claim 1. A rotator for a jib-carried tool including tree working units, wherein the rotator (10) is hydraulically driven and includes a stator (20) and a rotor (30), and wherein said rotator (10) is connected to a tip (2) of the jib or arm (3) via a link arrangement and to said tool (1), characterized in that the rotator (10) or its surroundings includes means (70, 71) for determining the relative position of rotation between the rotor (30) and the stator (20) and limiting the extent of rotation of the rotor relative to the stator based upon said determined relative position for limiting twisting of attached hoses and/or cables and to enhance automatisation.

Claim 2. A rotator according to Claim 1, characterised in that the means for determining the relative position of rotation include a pulse emitter (70) and a number of pulse generating elements (71), including grooves or teeth.

Claim 3. A rotator according to Claim 2, characterised in that the rotor (30) carries the pulse emitter (70) and that the stator (20) carries the pulse generating elements (71).

Claim 4. A rotator according to Claim 2, characterised in that the stator (20) carries the pulse emitter (70) and that the rotor (30) carries the pulse generating elements (71).

Claim 5. A rotator according to Claim 1 , characterised in that a supply (5) of pressure medium to the rotator is effected through the medium of connection points in the stator (20).

Claim 6. A rotator according to Claim 1, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of a swivel coupling (40) and through the medium of channels (41, 42) in the rotor (30).

Claim 7. A rotator according to Claim 1, charactersized in that a supply of pressure medium to the tool (1) is effected through the medium of at least one transit hole extending longitudinally through the rotor (30).

Claim 8. A rotator according to Claim 1, characterised in that a supply of electric power and/or a supply of signals to the tool is effected through the medium of at least one transit hole (45) extending longitudinally through the rotor (30).

Claim 9. A method pertaining to a rotator for a jib-carried tool including tree working units, wherein the rotator (10) is hydraulically driven and includes a stator (20) and a rotor (30), and wherein said rotator (10) is connected to a tip (2) of the jib or arm (3) via a link arrangement and to said tool (1), the steps of said method characterised by determining the relative position of rotation between the rotor (30) and the stator (20) with the aid of rotational position indicating means (70, 71), and limiting the angle through which the rotator (10) rotates in either direction from a starting position based upon the determined relative position of the

rotor and the stator for limiting the extent to which pressure medium connection hoses present are able to twist and/or to limit the extent to which connection cables (7) including cables for signals, data transmission, and electric power supply, are able to twist and to enhance automatisation.

Claim 10. A rotator according to Claim 2, characterised in that a supply (5) of pressure medium to the rotator is effected through the medium of connection points in the stator (20).

Claim 11. A rotator according to Claim 3, characterised in that a supply (5) of pressure medium to the rotator is effected through the medium of connection points in the stator (20).

Claim 12. A rotator according to Claim 4, characterised in that a supply (5) of pressure medium to the rotator is effected through the medium of connection points in the stator (20).

Claim 13. A rotator according to Claim 2, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of a swivel coupling (40) and through the medium channels (41, 42) in the rotor (30).

Claim 14. A rotator according to Claim 3, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of a swivel coupling (40) and through the medium of channels (41, 42) in the rotor (30).

Claim 15. A rotator according to Claim 4, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of a swivel coupling (40) and through the medium of channels (41, 42) in the rotor (30)

Claim 16. A rotator according to Claim 2, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of at least one transit hole extending longitudinally through the rotor (30).

Claim 17. A rotator according to Claim 3, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of at least one transit hole extending longitudinally through the rotor (30).

Claim 18. A rotator according to Claim 4, characterised in that a supply of pressure medium to the tool (1) is effected through the medium of at least one transit hole extending longitudinally through the rotor (30).

Claim 19. A rotator according to Claim 2, characterised in that a supply of electric power and/or a supply of signals to the tool is effected through the medium of at least one transit hole (45) extending longitudinally through the rotor (30).

Claim 20. A rotator according to Claim 3, characterised in that a supply of electric power and/or a supply of signals to the tool is effected through the medium of at least one transit hole (45) extending longitudinally through the rotor (30).

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

NONE